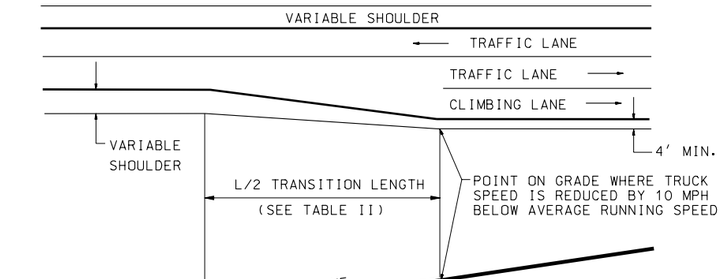
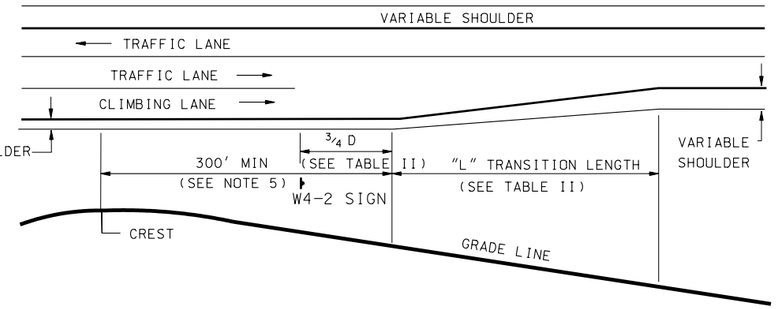
PLAN



PROFILE

PLAN



PROFILE

TABLE I

THE FOLLOWING THREE CRITERIA, REFLECTING ECONOMIC CONSIDERATIONS, SHOULD BE SATISFIED TO JUSTIFY A CLIMBING LANE:

1. UPGRADE TRAFFIC FLOW RATE IN EXCESS OF 200 VEHICLES PER HOUR
2. UPGRADE TRUCK FLOW RATE IN EXCESS OF 20 VEHICLES PER HOUR
3. ONE OF THE FOLLOWING CONDITIONS EXISTS:
   - A. A 10 MPH OR GREATER SPEED REDUCTION IS EXPECTED FOR A TYPICAL HEAVY TRUCK.
   - B. LEVEL OF SERVICE E or F EXISTS ON THE GRADE
   - C. A REDUCTION OF TWO OR MORE LEVELS OF SERVICE IS EXPERIENCED WHEN MOVING FROM THE APPROACH SEGMENT TO THE GRADE

TABLE II

DESIGN SPEED MPH	L* FT	L/2* FT	D FT
25	125	65	250
30	180	90	325
35	245	125	400
40	320	160	475
45	540	270	550
50	600	300	625
55	660	330	700
60	720	360	775
65	780	390	850
70	840	420	925

* BASED ON 12' TRAFFIC LANE WIDTH
"D" DISTANCE MAY PLACE W4-2 SIGN PRIOR TO CREST

NOTES:

1. USE THE CURRENT EDITION OF AASHTO A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS FOR DESIGN OF ROADWAY ELEMENTS.
2. USE THE CURRENT EDITION OF AASHTO ROADSIDE DESIGN GUIDE FOR CLEAR ZONE REQUIREMENTS.
3. CALCULATE CLEAR ZONE FROM SHOULDER LINE OF CLIMBING LANE.
4. USE CLIMBING LANE ON 2 LANE ROADWAY WHEN CRITERIA OF TABLE I IS MET.
5. EXTEND CLIMBING LANE A MINIMUM OF 300 FEET OVER CREST, PROVIDED MINIMUM PASSING SIGHT DISTANCE IS AVAILABLE. EXTEND THE CLIMBING LANE TO THE POINT WHERE MINIMUM PASSING SIGHT DISTANCE BECOMES AVAILABLE IF PASSING SIGHT DISTANCE IS RESTRICTED DUE TO HORIZONTAL OR VERTICAL ALIGNMENT, PROVIDED TRUCK SPEED IS LESS THAN 10 MPH BELOW AVERAGE RUNNING SPEED AT THAT POINT. OTHERWISE, EXTEND CLIMBING LANE TO THE POINT WHERE MINIMUM TRUCK SPEED IS EXCEEDED.
6. USE CLIMBING LANE ON MULTI-LANE ROADWAY WHEN TRUCK SPEED IS REDUCED 10 MPH BELOW AVERAGE RUNNING SPEED AND, AFTER ASSIGNING ALL PASSENGER VEHICLES TO THE INNER LANE(S), THE VOLUME EXCEEDS THE DESIGN CAPACITY OF THE REMAINING LANE(S).
7. USE CONTINUOUS CLIMBING LANES WHEN TWO OR MORE CLIMBING LANE SECTIONS ARE JUSTIFIED IN CLOSE PROXIMITY, AND THE GAP BETWEEN THE SECTIONS WOULD BE LESS THAN 1/2 MILE IN LENGTH.
8. OMIT CLIMBING LANES OF LESS THAN 1000'.
9. PROVIDE A MINIMUM OF 1000' PASSING LANE FOR EACH 1 MILE SECTION WHERE THERE IS NO PASSING SIGHT DISTANCE AND DHV EXCEEDS 80.

REVISIONS

NO.	DATE	APPR.	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION
SALT LAKE CITY, UTAH

RECOMMENDED FOR APPROVAL — JUN.26,2003 DATE

CHAIRMAN STANDARDS COMMITTEE APPROVED — JUN.26,2003 DATE

DEPUTY DIRECTOR

STANDARD DRAWING TITLE
CLIMBING LANES

STD. DWG. NO.
DD 3